UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF OHIO WESTERN DIVISION

DAVID and MARY FERGUSON,)
)
Plaintiffs,)
) Case No. C-1-02 039
vs.)
)
RYDER AUTOMOTIVE CARRIER) Judge Herman J. Webei
SERVICES, INC., et al.,)
)
Defendants.)

MOTION TO STRIKE EXPERT WITNESS

Comes Now Defendants Commercial Carriers, Inc. ("CCI") and Ryder Systems, Inc. ("RSI") and moves to exclude the testimony of Gabriel Alexander, who has been tendered by the plaintiffs as an expert witness pursuant to Rule 26, Federal Rule of Civil Procedure. Mr. Alexander fails to meet the standards set by Federal Rules of Civil Procedure 702. The witness is not qualified by knowledge, skill, experience, training or education to testify as an expert on the issues in this case; his testimony is not based on sufficient facts or data; his testimony is not the product of reliable principles and methods; and no reliable principles or methods have been applied by him to the facts of the case.

INTRODUCTION

This is a product liability action in which plaintiff David Ferguson contends that he sustained injuries while working on an automobile transport trailer manufactured by defendant CCI. (Second Amended Complaint para. 7) At the time of manufacture, CCI was a wholly owned subsidiary of RSI. (Memorandum in Support of Ryder System, Inc.'s Separate Motion for Summary Judgment and Statement of Uncontroverted Material Facts p. 4) The plaintiff alleges that he was working on the upper level of his automobile transport trailer in the course and scope of his employment with Allied Systems, Ltd. He was in the process of securing a vehicle for transit in the No. 1 position on the head rack (immediately above the cab). (Plaintiffs' Response

to Proposed Findings of Fact and Conclusions of Law) Ferguson lost his balance while standing up and grabbed the safety cable mounted along the side of the tractor. (Plaintiffs' Response to Proposed Findings of Fact and Conclusions of Law) A photograph depicting the location where Mr. Ferguson was working is attached hereto as Exhibit A and incorporated herein by this reference.

The plaintiffs contend that the safety cable broke when Mr. Ferguson grabbed it causing him to fall from the top of the trailer to the ground. He alleges he struck the side of the trailer and the side view mirror on the way down. (Plaintiffs' Response to Ryder System, Inc.'s Propose Findings of Fact and Conclusions of Law on Its Separate Motion for Summary Judgment p. 4)

The broken cable in question was not retained and is not available for inspection or testing. (Memorandum of Defendants Allied Systems, LTD. and Allied Automotive Group, Inc. in Opposition to the Motion for Summary Judgment of Plaintiffs p. 15)

CCI manufactured 861 trucks with safety cables installed on the head rack. These trailers were manufactured between 1994 and 1997. There were four cables per unit, amounting to a total of 3, 448 cables that were introduced into the stream of commerce. (Depo. of Terzian p. 13, 37) All of the cables had the same design and all of the cables were supplied by defendant Hanes Supply Company. The design was 1/4 inch galvanized aircraft cable with a yellow vinyl coating, with the ends swaged into a bolt for the fitting on either end. The length of the cables varied, depending upon the particular trailer to which they were to be installed, but the design was otherwise identical on all CCI trailers. (Depo. of Terzian at 33, 34, 35)

Beginning in approximately 1999, a few of the cables were discovered broken at the Allied Systems terminal in Moraine, Ohio. Although the cause of the breakage was undetermined, Allied Systems initiated a systemwide replacement program of all cables on all CCI trucks. The trucks that were awaiting new cables were not taken out of service, so the replacement program took some time. In addition, there were capacity issues that limited the number of replacement cables that could be shipped to each terminal. As a result, demand

exceeded supply, also lengthening the process. When the Allied shop had a truck in for service, of any type, it would replace the cables. If there were an insufficient number of cables in stock, the shop employees would examine the cables and replace the worst-looking ones. (Ex. B. Alexander Report, p.22, 23, 24, 25)

The truck that Mr. Ferguson was working on at the time of his injury had had three of its four original cables replaced. The one remaining original cable is the one plaintiff contends to have broken. (Ferguson Depo. p. 50-51)

The plaintiffs, through their liability expert Gabriel Alexander, are asserting a variety of theories of liability against CCI and the other defendants. The theories against CCI, and therefore against RSI, all revolve around the type of cable that was selected. These are basic design claims in which the plaintiffs contend that the design selected was inadequate for its intended use. Mr. Alexander intends to testify on behalf of the plaintiffs that Hanes Supply and CCI sold defective cables and failed to warn of the defects, and that Allied committed an intentional tort. (Ex. B)

Mr. Alexander Fails to Meet Basic Requirements of Federal Rule of Civil Procedure 702

Mr. Alexander should not be permitted to testify because he does not meet the basic requirements of Federal Rules of Evidence Rule 702, which governs the testimony of experts.

Rule 702 reads:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Under the Federal Rules of Evidence, the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable. Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Faced with the proffer of expert scientific

testimony, a trial judge must determine whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist trier of fact to understand or determine fact in issue.

Mr. Alexander fails to meet all prongs of Rule 702. The purpose of *Daubert's* gatekeeping requirement is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field. *Wellman v. Norfolk and Western Ry.*Co. 98 F.Supp.2d 919 (S.D.Ohio, 2000). 1

Mr. Alexander Lacks Specialized Training and Experience.

Mr. Alexander lacks the specialized training and experience that is required of an expert offering testimony on design and failure analysis of the cable hand rails. Mr. Alexander's expertise is in the area of trucking related accidents, not metallurgy. (*Plaintiff's Memorandum in Opposition to Defendant Hanes Supply, Inc. Motion to Exclude the Testimony of Plaintiff's Expert Witness, Gabriel Alexander* p. 3). Mr. Alexander's academic training is limited to a bachelor's degree in engineering. He conceded that he has no specialized training in wire rope or metallurgy. This is his first time testifying about wire rope. (Alexander depo. p.11.) An individual, although qualified as an expert in one area of expertise, may be precluded from offering opinions beyond that area of expertise, or that are not founded on a reliable methodology. *Wellman* at 924. See also *Kumho Tire Co., Ltd., v. Carmichael* 526 U.S. 137, 154, 119 S.Ct. 1167(1999) (finding the proffered expert qualified as an expert in mechanical engineering... but that his methodology in analyzing a particular tire failure was not reliable); *Cummins v. Lyle Indus.*, 93 F.3d 362, 371 (7th Cir.1996) (industrial engineer not permitted to render an expert opinion regarding the adequacy of warnings, the adequacy of an instruction manual, and the feasibility of alternative designs for a trim press).

¹Plaintiff's *Memorandum in Opposition* cites a selection of Ohio cases interpreting *Daubert*. (*Plaintiff's Memorandum in Opposition to Defendant Hanes Supply, Inc. Motion to Exclude the Testimony of Plaintiff's Expert Witness, Gabriel Alexander* p. 5). These cases are state court cases and are not persuasive or binding on the Federal Court.

Mr. Alexander is not an expert in how long galvanized wire rope should last. He has no experience in wire rope, has done no testing of wire rope and has never published with regard to wire rope. (Alexander depo. at 11 and 96, Ex. C Alexander CV). While he is critical of the use of galvanized wire rope, the authorities and industry standards he cites recommend that galvanized wire rope be used where, as here, corrosion protection is needed. (Alexander depo. at 92-93.) Even if he had the necessary expertise, the requirement under the Federal Rule of Evidence that expert's testimony pertain to "scientific knowledge" establishes the standard of evidentiary reliability. Daubert, supra.

In *Kumho*, the plaintiffs brought a products liability action against the tire manufacturer and tire distributor for injuries sustained when the right rear tire on their vehicle failed. The plaintiffs' case relied on the depositions of a tire failure analyst who intended to testify that, in his expert opinion, a defect in the tire's manufacture or design caused the blowout. His opinion was based upon a visual and tactile inspection of the tire and upon the theory that in the absence of at least two of four specific, physical symptoms indicating tire abuse, the tire failure of the sort that occurred here was caused by a defect. Kumho Tire moved to exclude the testimony on the ground that the witness' methodology failed to satisfy Federal Rule of Evidence 702.

The *Kumho* court noted that *Daubert* discussed four factors--testing, peer review, error rates, and "acceptability" in the relevant scientific community--which might prove helpful in determining the reliability of a particular scientific theory or technique, *supra*, at 593-594, 113 S.Ct. 2786, and found that those factors argued against the reliability of the expert's methodology.

Mr. Alexander's methods have not been subjected to peer review, and his testimony that galvanized cable should not have been used runs contrary to generally-accepted principles of material selection. In fact, galvanizing is used to protect metal in corrosive environments. (Alexander depo. at 92). Mr. Alexander's report also concedes that galvanized cable is the norm for outdoor environments, as galvanizing protects the metal from corrosion. (Ex. B Alexander Report at 17). "Galvanized ropes have the individual wires protected by a uniform coating of

pure zinc. These are used where ropes are exposed to weather, to moisture or other corroding agencies". Id. Mr. Alexander then contradicts these authorities by asserting that galvanized cable should not have been used. (Alexander depo. at 67, 92-93). However, he supplied no scientific support for this opinion.

Mr. Alexander Lacks Sufficient Facts or Data to Render an Expert Opinion.

There are not sufficient facts or data upon which Mr. Alexander can base any expert opinion. The actual accident cable does not exist. Mr. Alexander bases his theories on the examination and testing of one part of a mystery cable that appeared on someone's doorstep in the middle of the night. There is no evidence that this cable is the same variety as the accident cable or that it was subject to the same use or misuse. There is no information as to when, why or how the exemplar cable failed. Mr. Alexander relies on an unauthenticated exemplar that bears no known resemblance to the actual cable. Mr. Alexander also failed to examine the entire exemplar. The exemplar is broken in two pieces: a longer piece consisting of a threaded stud swaged to ten feet of length of wire, and a short piece consisting of the other threaded stud with just a small amount of wire protruding from the swage. (Alexander depo. at 33-35). He only examined the longer piece. *Id.* The actual cable differs from the exemplar in that the actual cable broke in the gap between the vinyl cover and the threaded stud. On the exemplar, there is no gap and the vinyl cover is tucked inside the swage. Mr. Alexander did not know that the exemplar broke differently because he only had a part of it.

Plaintiff argued in its Answers to Defendant CCI's Motion for Summary Judgment that CCI's expert is unable to render an expert opinion because there are no cables or exemplar cables. Plaintiff cites to Mr. Sauer's conclusion that it is "impossible" to render a professional opinion within a reasonable degree of engineering certainty because of the absence of the failed part and the poor photographic evidence. The same absence of foundation makes it impossible for Mr. Alexander to render an expert opinion as to the cause of the failure.

Mr. Alexander Fails to Apply Reliable Principles and Methods.

For an expert opinion to be admissible it must be based on reliable principles and methods. Daubert, supra. Mr. Alexander's conclusions are not supported by scientific testing. "Scientific," within the meaning of Federal Rule of Evidence 702 is "scientific, technical, or other specialized knowledge that will assist trier of fact to understand evidence", and implies grounding in methods and procedures of science. Daubert, supra. "Knowledge", as that term is used in Rule 702, connotes more than subjective belief or unsupported speculation. Daubert, *supra*. There is simply nothing scientific about Mr. Alexander's analyses.

For scientific testimony to be admitted, the proposed testimony must be supported by appropriate validation. The testimony must be based on what is known. *Daubert, supra*. One way of determining whether a theory or technique is scientific knowledge that will assist trier of fact, and, thus, whether expert testimony is admissible, is whether the theory or technique has been subjected to peer review and publication.

The fact of publication of theory or technique, or lack thereof, in peer-reviewed journals, while not dispositive, is relevant in assessing scientific validity of a particular technique or methodology on which expert opinion is premised; submission to scrutiny of the scientific community is a component of "good science." This is in part because it increases the likelihood that substantive flaws in methodology will be detected. *Daubert, supra*. In a case involving scientific evidence, evidentiary reliability will be based upon scientific reliability.

With this in mind Mr. Alexander proposes to testify about the service life of the galvanized steel cable assemblies like the one used on Mr. Ferguson's truck. Mr. Alexander concludes that the design of the cable assembly created a "stress concentration" where the cable was weakened, making it susceptible to accelerated corrosion. Alexander concludes, therefore, that galvanized wire rope was inappropriate in this application. However, Mr. Alexander is not a metallurgist, nor did he consult one in preparing his report or making his analysis. (Alexander depo. at 9, 13). He has not worked in this field, and none of his opinions have been subject to peer review. Moreover, he did not perform a single test or analysis on the wire rope or the metal

it is made of. We do not reach the question of whether his tests or analysis are reliable, as he did not perform any. (Alexander depo. at 41, 52, 85-87, 95, 96). He did not discuss or opine on the corrosion rates of galvanized steel cable or on the environmental conditions where this cable was in service. (Ex. B Alexander Report, Alexander depo. at 85). Mr. Alexander doesn't even know what type of galvanizing was used in the actual cables or what method of galvanizing lasts longer. (Alexander depo. at 85). Despite condemning the use of galvanized steel in the product involved in this case, Mr. Alexander admits that galvanized wire rope is designed for use where corrosion protection is needed. (Alexander depo. at 92-93).

Rather than undertaking a scientific analysis of the wire rope cable assembly, Mr. Alexander merely selectively restates the deposition testimony of various witnesses and makes broad generalizations about duty and defects. An expert witness may not give expert opinions which simply verify issues of fact about which lay witnesses will testify. Wellman at 925. Mr. Alexander has no pertinent experience in wire rope corrosion testing and he conducted no corrosion testing in this case. (Ex. B Alexander depo. p. 8-9). His wire rope experience is limited to one application in which he designed an axle that employed a wire rope to limit the axle's upward travel. *Id.* The cables in this case were static -- they were not used for lifting, hoisting or moving objects at all - they were merely handholds.

Any number of tests or analyses could assist the trier of fact in determining whether the use of galvanized cable was proper in this case or if the defendants should have used a different material. But, Mr. Alexander did not do these tests. Mr. Alexander conducted no tests of the zinc plating loss from wire flexion. (Alexander depo. at 52). He cannot say how long untreated, or "bright," wire would last. (Alexander depo. at 93). He cannot say how long galvanized wire would last. (Alexander depo. at 95). He conducted no substantive testing whatsoever. (Alexander depo. at 9, Ex. B Alexander Report at 27-28).

Mr. Alexander criticizes defendants for insufficient testing in his report, and yet plaintiff suggests that only "actual testing and the use of material over an extended period of time" could reveal its life span. (Plaintiff's Memorandum in Opposition to Defendant Hanes Supply, Inc.

Motion to Exclude the Testimony of Plaintiff's Expert Witness, Gabriel Alexander p. 4, Ex. D Alexander report at 34). Mr. Alexander testified in his deposition that there are tests available to determine the life span of material, but that he failed to utilize them. (Alexander depo. at 41, 85).

In defense of Mr. Alexander's failure to test the exemplar, plaintiff's cite to Mr. Alexander's report reference list. (*Plaintiff's Memorandum in Opposition to Defendant Hanes* Supply, Inc. Motion to Exclude the Testimony of Plaintiff's Expert Witness, Gabriel Alexander p. 5). According to plaintiff, many of these references pertain to wire ropes such as the one that is the subject of this lawsuit. However, it appears these references are simply pulled from company websites, which hardly qualifies as "scientific". There are little if any of Mr. Alexander's opinions that rely on hard science at all, and there is no scientific basis to conclude why the accident cable failed or that the failure had anything to do with galvanizing of the material or stress concentrations.

As indicated, Mr. Alexander's opinions are based in part on the examination of unauthenticated exemplar cables. There is no way to determine if those cables failed in the same way as the actual cable or bear any resemblance, other than perhaps visual to the actual cable at all. There is no evidence that the exemplar cable was ever used on CCI trucks. There is also no way to determine if the exemplar failed in the same way or for the same reasons as the actual cable. In fact, despite plaintiff's contention that the exemplar cable and the accident cable are similar, they are not similar at all. The accident cable suffered an uneven break, and the exemplar cable had a clean break. It is quite possible that the exemplar cable was one of the cables removed and cut by Allied as part of the replacement campaign, and it has been sitting around collecting rust for the last several years. No one knows its history, which is why it is a totally unreliable and useless exemplar.

Mr. Alexander makes a reference to "stress concentration factors" in his report, stating that the wire ropes were less than half their original strength after swaged fittings were added to each end. (Ex. B Alexander Report at 32). But, Mr. Alexander later states that the problem is not the strength of the wire, but that the swage creates a stress concentration in the wire's galvanized coating from which corrosion grows. (Alexander depo. at 74-75, 82-83). This stress concentration is created, according to Mr. Alexander, by a change in the cross sectional area of the wire rope at the swage. (Alexander depo. at 73-76).

There are two problems with this stress concentration hypothesis. First, it is not supported by any testing. Mr. Alexander could have tested cables for the loss of their galvanized coating at this flex point, but he did not do so. (Alexander depo. at 52). Second, Mr. Alexander treats the wire rope as if it were a solid piece of metal with an easily-determined cross sectional area. The 7 X 19 galvanized wire rope used in the design is made of seven groups of cables containing 19 strands of wire each. (Alexander depo. at 129-130). In other words, this wire rope cable has 133 strands of wire, with space between each of these 133 wires.

To support his opinions, Mr. Alexander could have compared the corrosion rates of galvanized cable to rates for untreated cable or for stainless steel cable. (Alexander depo. at 8-9). Mr. Alexander could have compared the corrosion rates of cables with the swage joints to corrosion rates for unswaged cables. He could have consulted pertinent technical publications, but did not. (Id. at 84, Ex. B Alexander Report at 37).

In other words, without relevant experience, without any testing, and without consulting pertinent technical literature, he contradicts the science of the industry to reach a predetermined result favorable to the plaintiff. Such opinions do not meet the standards of *Daubert* as they are unreliable and based on an unscientific foundation.

Mr. Alexander's Opinion Will Not Assist the Trier of Fact.

Mr. Alexander's testimony will confuse the jury because he draws illogical conclusions and ignores key facts. For example, Mr. Alexander draws the following illogical and impermissible conclusion from a design change that was instituted before the occurrence of any accidents:

No explanation has been provided as to why the design change was made. Further absent a defective condition there would have been no reason for CCI and/or Hanes to change the design.

(Ex. B Alexander Report at 31). Federal Rule of Evidence 407 recognizes the flaw of this logic and makes this statement inadmissible. But, it is also a misstatement of the facts. The record is uncontroverted on the point that the design was changed to give more room to adjust or "take up" in the cables. (Dzaidaszek depo. at 15).

Mr. Alexander's testimony does little but summarize the testimony of other witnesses, and twist the information to suit the plaintiff's theory.

One of the key questions to be answered in determining whether a theory or technique is scientific knowledge that will assist trier of fact, and, thus, whether expert testimony is admissible, will be whether a theory or technique can be, and has been, tested.

Plaintiff argues that: "The trier of fact will easily be able to compare the photographs taken of the instant cable and determine of [sic] the opinions expressed by Gabriel Alexander, P.E. are credible". (Plaintiff's Memorandum in Opposition to Defendant Hanes Supply, Inc. Motion to Exclude the Testimony of Plaintiff's Expert Witness, Gabriel Alexander p. 7). If it were this easy there would not be any expert opinion necessary. The jury has no knowledge or understanding of the technical workings of the cable². To require them to figure out the science of the cables flies in the face of the requirements and intent of Daubert, which is to provide the trier of fact with assistance in understanding difficult technical issues.

CONCLUSION

Mr. Alexander's testimony is unhelpful, unreliable, and irrelevant. His testimony is not supported by any scientific testing, analysis or inquiry. He offers no scientific evidence of how long galvanized wire rope lasts. He relies on an exemplar that he knows nothing about and that appears to bear little resemblance to the cable from Mr. Ferguson's accident. Mr. Alexander will only confuse and mislead the jury. His testimony should be excluded.

²Neither, apparently, does Mr. Alexander.

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CERTIFICATE OF MAILING

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